

CITRONIC

CDM8:4s Professional DJ Mixer

Ref. No: 172.773



OWNER'S MANUAL

The CDM8:4s Professional DJ Mixer

A fully featured professional quality DJ Mixer, offering complete control over the audio path to allow truly creative mixing. There are 10 Inputs comprising of 2 Mics, 2 CD, 2 Phono and 4 Line all with complete control of gain and EQ. The Mic inputs have a gain control, 3 Band Eq, On-Air switch and a manual override system. The music Inputs also have Gain and 3 Band Eq with overall level controlled by professional quality faders. All music channels have remote start facilities. The CDM8:4s has a assignable dipless crossfader with the additional feature of being defeatable. As well as a balanced main output this mixer also provide an additional booth output plus a BNC gooseneck lamp output.

Important Safety Information

Warnings:

All the safety and operating instructions should be read before the appliance is operated.

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

To reduce the risk of electric shock, do not remove the cover (or back). There are no serviceable parts inside. Always refer servicing to qualified service personnel.

Cautionary Notes:

Handle the power supply cord carefully. Do not damage or deform the power supply cord. If it is damaged or deformed, it may cause electric shock or malfunction when used. When removing from wall outlet, be sure to remove by holding the plug attachment and not by pulling the cord.

In order to prevent electric shock; do not open the top cover. If a problem occurs, contact your dealer.

Do not place metal objects or spill liquid inside the mixer. Electric shock or malfunction may result.

Any use of the controls, or any adjustment, or the performance of any procedure other than those specified herein may result in serious damage to your health.

The mixer should not be opened or repaired by anyone except properly qualified service personnel.

Double insulated - when servicing, use only identical replacement parts.

General Do's & Don'ts

There are a few general Do's and Don'ts thoughts that you should become familiar with if you have not had a great deal of experience with professional audio systems.

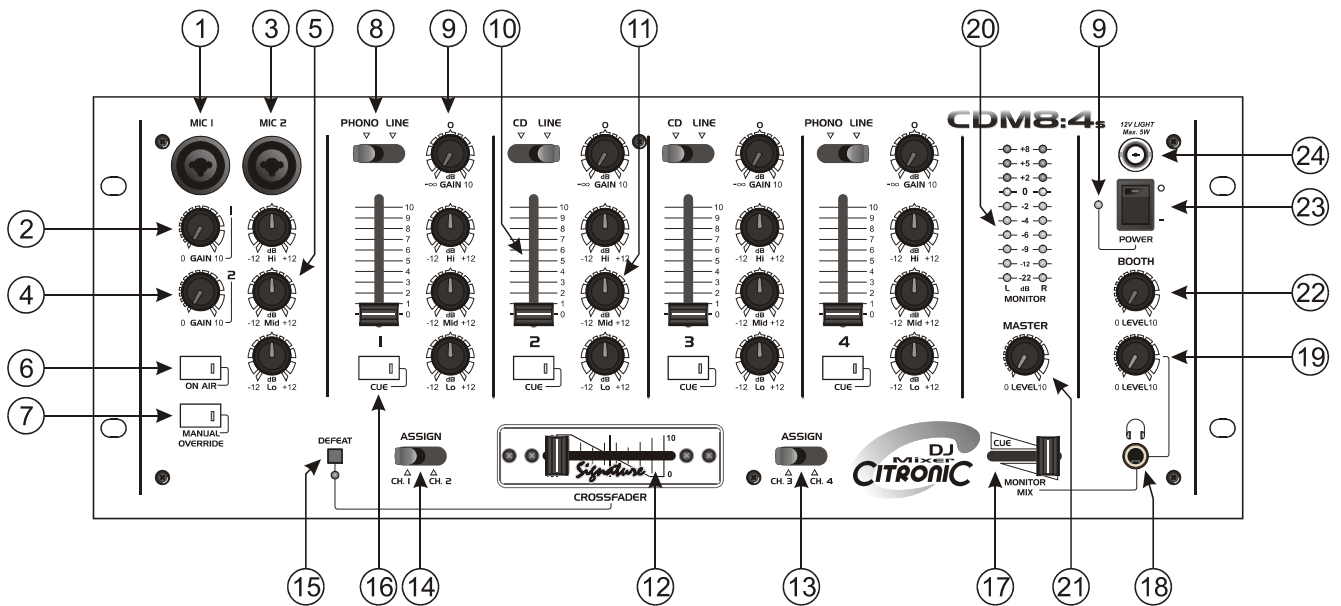
Cables & Connectors - Always use good quality cables and connectors. It might seem expensive when you first look at it, but the first time you have a problem in front of an audience you'll curse the day you didn't make that small investment. Over 30 years in the business has taught us that over 75% of all problems with DJ systems are simple connector ones. Don't get caught out.

Switching on your system - Get into the habit of turning on the mixer and all the inputs to it before you turn on the amplifiers. The CDM8:4s has been designed not to harm your amplifiers or speakers if you turn the amplifiers on first, but this may not be true of the inputs plugged into the CDM8:4s Mixer. Play safe; always turn on your amplifiers last.

Power Supply - The power supply for your CDM8:4s is built into the mixer and will be fitted with a mains plug specifically for the mains supply in your country. If it does not match the power socket you wish to use check with your dealer before you plug it in. It is possible you could damage your mixer if it is not the correct version for your mains power supply. Worse still, it could be unsafe. Don't take chances with Mains Power - it can kill.

Crossfader - The crossfader is the most used feature on your mixer and great care has been taken in the choice of components for this function. Even so, it is the most likely thing to wear out first on your mixer, so we've made it quick and easy to replace. Don't get caught out, always carry a spare.

Front Panel Illustration



Features & Functions Top Panel

Microphone Section

1. Microphone 1 Input

A combination XLR & ¼" jack socket mounted on the front face of the mixer for connecting your microphones and offer both balanced or unbalanced connections:

Balanced Input Wiring: Tip: Pin2: Positive (HOT)
Ring: Pin3: Negative (COLD)
Sleeve: Pin1: Ground (SHIELD)

Unbalanced Input Wiring: Tip: Pin2: Positive (HOT)
Ring: Pin3: Ground (SHIELD)
Sleeve: Pin1: Ground (SHIELD)

Input Impedance 2K Ohm
Input Sensitivity -53dBu (1.73mV)

2. Microphone 1 Gain Control

Microphone 1 has it's own gain control allowing maximum microphone control and will accommodate most microphones, both low and high impedance's to 600 Ohms.

Range: <-70dB to 53dB

3. Microphone 2 Input

A combination XLR & ¼" jack socket mounted on the front face of the mixer for connecting your microphones and offer both balanced or unbalanced connections:

Balanced Input Wiring: Tip: Pin2: Positive (HOT)
Ring: Pin3: Negative (COLD)
Sleeve: Pin1: Ground (SHIELD)

Unbalanced Input Wiring: Tip: Pin2: Positive (HOT)
Ring: Pin3: Ground (SHIELD)
Sleeve: Pin1: Ground (SHIELD)

Input Impedance 2K Ohm
Input Sensitivity -53dBu (1.73mV)

4. Microphone 2 Gain Control

Microphone 2 has it's own gain control allowing maximum microphone control and will accommodate most microphones, both low and high impedance's to 600 Ohms.

Range: <-70dB to 53dB

5. Microphone EQ Controls

Both microphone inputs share a 3 Band Eq stage prior to the ON AIR switch.

EQ Control 'Lo'

This control allows 12dB of cut or boost to the low frequencies.

EQ Control 'Mid'

This control allows 12dB of cut or boost to the mid frequencies.

EQ Control 'Hi'

This control allows 12 dB of cut or boost to the high frequencies.

6. On Air Switch

Activates or de-activates both microphone inputs without the need to adjust the Gain controls.

7. Manual Override Switch

When this switch is held down the music channels will be attenuated by 15dB.

Music Channels Section

8. Input Select Switch

This control selects the input source for its respective channel. Channels 1, & 4 are Line or Phono, channels 2 & 3 are CD or Line switchable.

9. Input Gain Controls

Each main input channel has a gain control offering <-70 to +10dB gain range allowing compensation for differing input levels.

10. 45mm Input Fader

The slider sets the signal level of the channel being mixed onto the main Left, Right Output channels or sent to the assignable Crossfader.

11. Music Channel EQ Controls

Each music channel has a 3-band Eq stage providing comprehensive control over individual input Eq content.

EQ Control 'Lo'

This control allows 12dB of cut or boost to the low frequencies.

EQ Control 'Mid'

This control allows 12dB of cut or boost to the mid frequencies.

EQ Control 'Hi'

This control allows 12dB of cut or boost to the high frequencies.

Crossfader Section

12. 45mm Crossfader

This dipless 45mm crossfader is dedicated between either CH.1 or 2 and CH.3 or 4 dependent on the setting of the assign switches. (13&14)

The crossfader is easily and quickly replaced by removing the 2 outer pozi countersunk screws on the crossfader panel and unplugging attached ribbon connector.

13. Channel 3 & 4 Assign Switch

This switch will assign either channel 3 or channel 4 to the right-hand side of the crossfader.

14. Channel 1 & 2 Assign Switch

This switch will assign either channel 1 or channel 2 to the left-hand side of the crossfader.

15. Crossfader Defeat Switch

When depressed the crossfader is disabled and all 4 music channels will act independently.

Note: When the crossfader is disabled the overall output level will be slightly higher so level controls such as gains and channel faders may need to be adjusted to maintain the optimum running level.

Music Monitoring Section

16. Input Cue Switch

The pre-fade input signal from each of the four main music channels can be routed to the headphone and when selected the VU display section of the mixer.

17. Monitor Pan Fader

Varies the mix between the cued input and main L, R output, ideal for accurate beat mixing. Full left will give cued input; full right will give main output program.

18. Headphone Socket

(Standard Stereo 1/4" Jack)

L/H Channel	- Tip
R/H Channel	- Ring
Ground	- Sleeve
Minimum Load Impedance	- 32 Ohms
Power Output	- 316 mW

19. Headphone Level Control

Sets desired level to headphones. Headphone program depends on the position of the monitor pan control.

20. LED Monitor

Twin 10 segment LED ladders, with peak hold, show the signal level of whatever is present on CUE/MONITOR bus, either PFL or output signals dependent on setting of monitor PAN control (17).

The LED ladder has a range of -22 to +8dB. The yellow LED in each display reflects the optimum running level of 0dB.

Output Controls Section

21. Master Output Level Control

This rotary pot controls the overall output level leaving the mixer at its Master Balanced XLR and unbalanced Phono Socket outputs.

22. Booth Output Level Control

This pot controls the overall output level of the unbalanced Booth Output. The program content of the Booth Output is the same as the master output so can also be used as a Zone output.

23. Power Switch

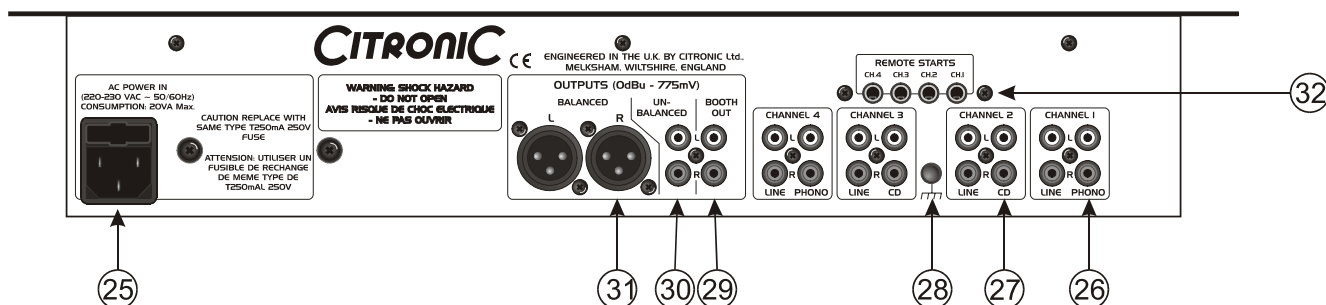
Controls the AC power to the mixer.

Note: Be sure to switch on the power to you mixer before switching on the amplification system.

24. 12 Volt Light BNC Connector

A 12VDC, 5-Watt output is supplied for connection of a gooseneck lamp.

Rear panel Illustration



Features & Functions Rear Panel

25. IEC Socket/Fuse Holder

The AC power to the mixer is via a standard IEC/Fuse Holder connector. The mixer is supplied with an AC cord set.

Cable colour code:	UK/Euro	U.S.A
Live:	Brown	Black
Neutral:	Blue	White
Earth:	Yellow/Green	Green

26. Phono Inputs

These Stereo unbalanced RCA jack inputs are for turntables only and consist of a Phono (RIAA) connection

27. CD & line Inputs

These stereo inputs are used for any line level device such as a CD-Player.

28. Earth Stud

Star point earth connection for turntable ground wires to prevent hum.

29. Booth Output

Stereo program output that is not affected by the master level control, design for monitoring in the DJ booth.

Level	=	0dBu (775mV rms)
Output Impedance	=	<50 Ohm
Load Impedance (MIN)	=	5K Ohm

30. Master Un-Balanced Outputs

Main stereo program output provided by standard unbalanced phono sockets:

Level	=	0dB (775mV)
Output Impedance	=	<50 Ohm
Load Impedance (MIN)	=	5K Ohm

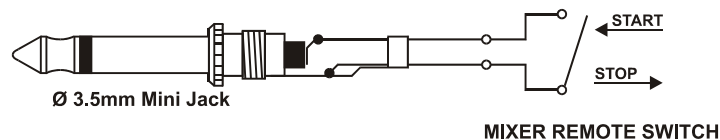
31. Master Balanced Outputs

Main stereo program output provided by 3 pin Male XLR sockets:

Output wiring (Balanced)	Pin 1 - Ground (Unbalanced)	- Ground (sleeve)
	Pin 2 - Positive	- Positive
	Pin 3 - Negative	- No Connection
Nominal Output Level:	Balanced & Unbalanced	0 dB (775m Vrms)
Impedance:	Output <50 Ohm	Minimum Load 600 Ohm

32. Remote Start Sockets

Music Channels 1-4 have a Remote Start facility provided via a standard 3.5mm jack socket. When a channel fader is increased from minimum the contacts of the jack socket short together. To re-open the contacts the channel fader needs to be returned to minimum. The remote start facility on the CDM8:4s is ideal for use with Citronic Turntables PD-1 and RT:1 as well as the Citronic CD-2 & CD-4 Dual CD players. Please see the diagram below for wiring.



WARNING: THIS MIXER MUST BE EARTHED FOR SAFETY AND GOOD GROUNDING PRACTICES IN MIXING

In the event of ground-loop problems in the audio system, DO NOT disconnect the AC supply Earth to any equipment before consulting equipment instruction manuals.

For example most amplifiers have audio ground lift switches or are designed specifically to avoid ground-loop problems connected to "earthed" mixers.

Ensure the mixer has a "clean" AC supply from a wall socket that is not used for other equipment that would lead to interference - such as lights, refrigerators etc.

Fuse Holder

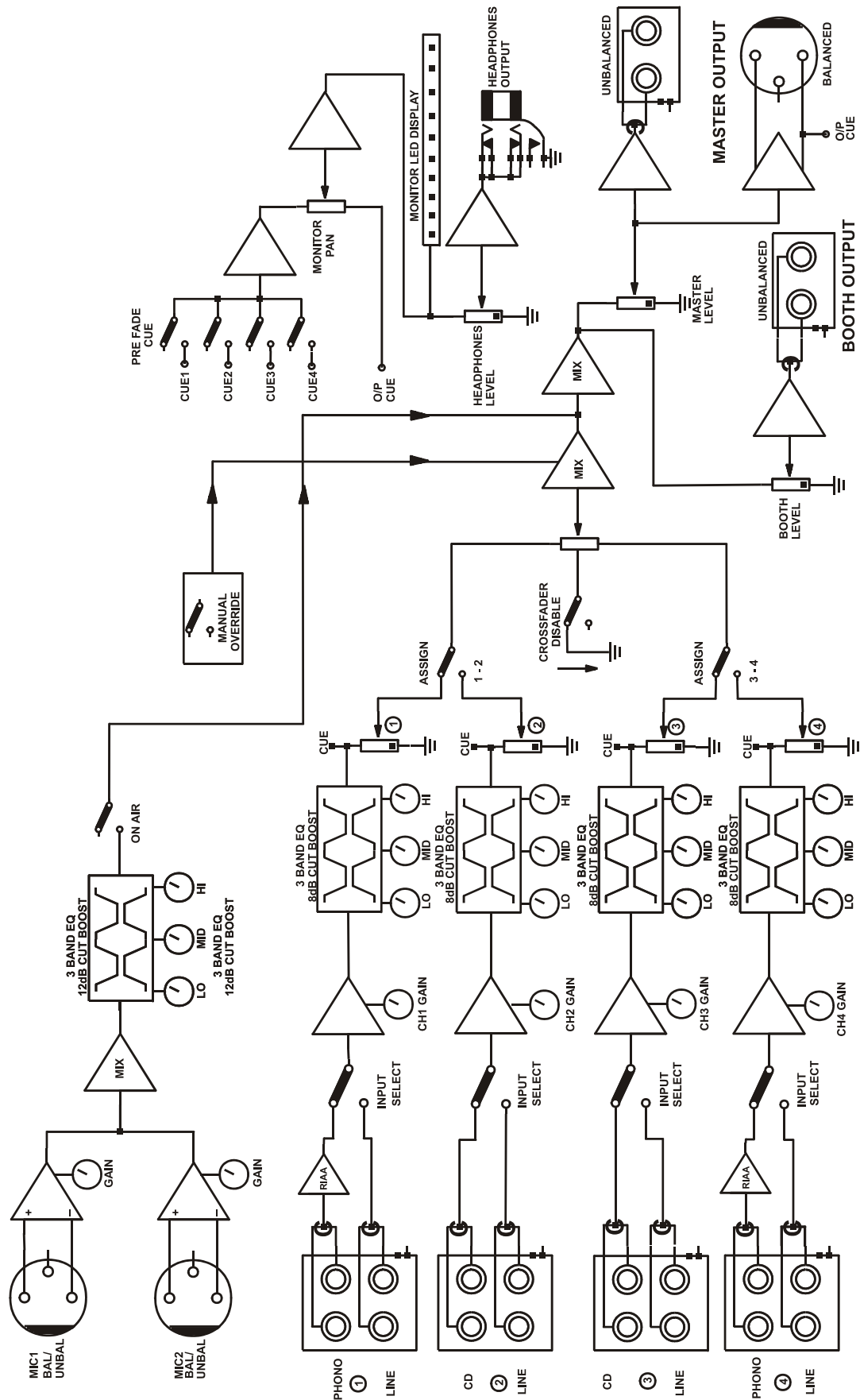
The AC supply to the mixer is protected by a fuse housed in the IEC socket/fuse holder.

AC Supply	Fuse Rating
220-230V:	T250mA

To change the fuse:

- 1) Disconnect the AC supply lead.
- 2) Simply remove the fuse using a flat blade screwdriver and replace with the appropriate fuse.

Block Diagram



Technical Specification

Parameter	Mic	Phono	Line/CD
Sensitivity	-53dBu (1.73mV)	46dBu (4mV)	0dBu (775mV)
Input Impedance	2K	47K	50K
Source Z Ohm	150 Ohm		2K Ohm
Max Gain	50dB		<-70 to +10dB
S/N Ratio*	68dB	73dB	> 87dB
Freq Response**	25Hz to 30KHz	RIAA	< 10Hz to 24 KHz
THD ***	0.042%		< 0.005%

Microphone Equalisation

Lo	=	± 12dB @ 80Hz
Mid	=	± 12dB @ 600Hz
Hi	=	± 12dB @ 6KHz

Music Channel Equalisation

Lo	=	± 12dB @ 100Hz
Mid	=	± 12dB @ 1KHz
Hi	=	± 12dB @ 10KHz

Noise Floor

Main L, R Output:	< -100dBu
Mic Pre-Amp T.E.I.N.	- 118dBu

Headphones

Load:	32 Ohms MIN
Power:	112mV @ 32 Ohms
Freq Response.**	11Hz to 25KHz
S/N	81dB

Output

Master L, R Output:	Balanced XLR:	0 dBu (775mV rms)
	Unbalanced Phono:	0 dBu (775mV rms)
Booth, Aux Outputs:	Unbalanced Phono:	0 dBu (775mV rms)

Note:	*:	Measured at output 22Hz-22KHz Filtered
	**:	Measured at 1 dB w.r.t. a 0dB ref at Mixer Output
	***:	Measured at mixer output, 30KHz Filtered

Dimensions:	Width:	483mm (19")
	Height:	177mm (4U)
	Depth:	95mm

Weight:	5kg
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Cut-out required:	Width:	440mm
	Height:	165mm

CE Marking

EMC Conformity

The CDM8:4s has been tested to demonstrate compliance with the EMC 89/336/EEC directive, under which the following harmonised standards apply:

- i) EN552020 Electromagnetic Immunity
- ii) EN61000-3-2 Mains Harmonic Disturbance Limits
- iii) EN61000-3-3 Voltage Fluctuations Limits
- iv) EN55013 Electromagnetic Compatibility

Electrical Equipment Safety Regulations (1994)

The CDM8:4s has been designed and tested to demonstrate compliance to the LVD 73/23/EEC directive, using the following standard.

- i) EN60065 Safety Requirements for mains operated electronic equipment for household and similar general use.

Notes:

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